Installing Oracle Database Software and Creating a Database

Overview

Purpose

This tutorial shows you how to use the Oracle Universal Installer (OUI) to install the Oracle Database 12*c* software and create a database. You will also learn how you can use the Database Configuration Assistant (DBCA) to create additional databases.

Time to Complete

Approximately 1 hour

Introduction

The Oracle Universal Installer (OUI) is used to install Oracle Database software. OUI is a graphical user interface utility that enables you to view the Oracle software that is installed on your machine, install new Oracle Database software, and delete Oracle software that you no longer need to use. Online Help is available to guide you through the installation process. One of the installation options is to create a database. If you select database creation, OUI automatically starts Oracle Database Configuration Assistant (DBCA) to guide you through the process of creating and configuring a database. If you do not create a database during installation, you must invoke DBCA after you have installed the software to create a database. You can also use DBCA to create additional databases.

In Oracle Database 12c Release 1 the concept of multitenant environment has been introduced. The multitenant architecture enables an Oracle database to function as a multitenant container database (CDB) that includes zero, one, or many customer-created pluggable databases (PDBs). A PDB is a portable collection of schemas, schema objects, and nonschema objects that appears to an Oracle Net client as a non-CDB. All Oracle databases before Oracle Database 12 were non-CDBs.

A CDB includes the following components:

- Root

  The root, named `CDB$ROOT`, stores Oracle-supplied metadata and common users. An example of metadata is the source code for Oracle-supplied PL/SQL packages. A common user is a database user known in every container. A CDB has exactly one root.

- Seed

  The seed, named `PDB$SEED`, is a template that you can use to create new PDBs. You cannot add objects to or modify objects in the seed. A CDB has exactly one seed.

- PDBs

  A PDB appears to users and applications as if it were a non-CDB. For example, a PDB can contain the data and code required to support a specific application. A PDB is fully backward compatible with Oracle Database releases before Oracle Database 12c

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Each of these components is called a container. Therefore, the root is a container, the seed is a container, and each PDB is a container. Each container has a unique container ID and name within a CDB.

Hardware and Software Requirements

Before installing the software, OUI performs several automated checks to ensure that your computer fulfills the basic hardware and software requirements for an Oracle Database installation. If your computer does not meet a requirement, then an error message is displayed. The requirements may vary depending upon the type of computer and operating system you are using, but include the following:

- Minimum of 1 GB of physical memory
- Sufficient paging space
- Installation of appropriate service packs and/or patches
- Use of appropriate file system format

Prerequisites

Before starting this tutorial, you should:

- Have access to the Oracle Database 12*c* distribution media or have downloaded the software from the Oracle web site
- Have general knowledge of product installation

Installing Oracle Database Software

There are two types of Oracle Database installations: basic (also known as typical) and advanced. Choose the typical installation to quickly install the software with minimal input. The advanced installation enables you to perform a custom installation.

Please note that the values displayed in the screenshots may vary from your installation values due to differences in disk space and memory.

Basic (Typical) Installation

Advanced Installation

For Non-Container Database

For Container Database(including Pluggable Database)

Creating an Oracle Database

If you chose to install the Oracle Database software only and did not create a database, or if you want to create additional databases, you can do so by using the

If you chose to install the Oracle Database software only and did not create a database, or if you want to create additional databases, you can do so by using the Database Configuration Assistant (DBCA). DBCA offers two modes: typical and advanced. If you choose Advanced Mode, you can customize storage locations, initialization parameters, management options, database options, and different passwords for administrator user accounts.

Note: If you created a database as part of the Basic (Typical) Installation or Advanced Installation, you do not need to perform the tasks in this topic.

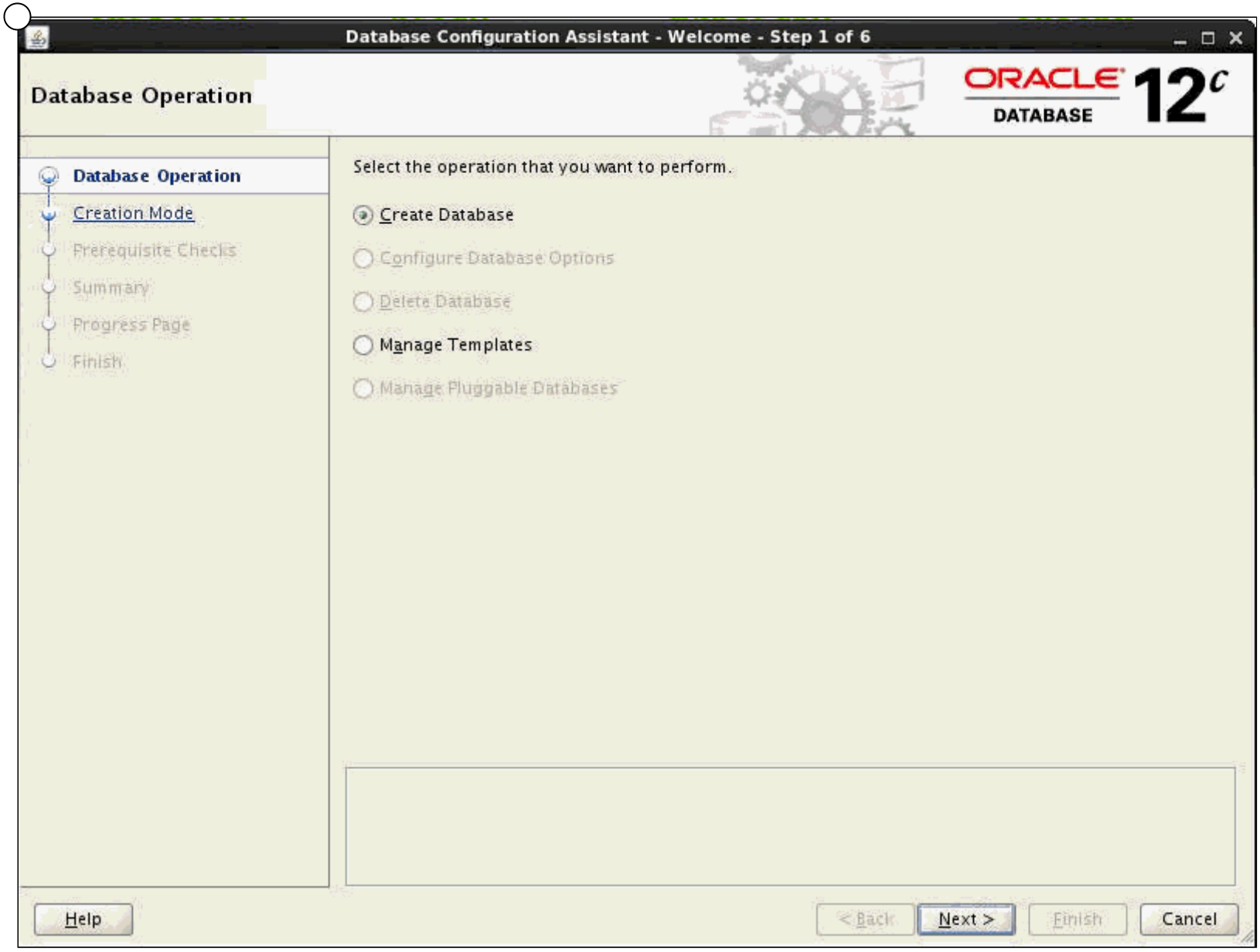
Typical Mode

Advanced Mode

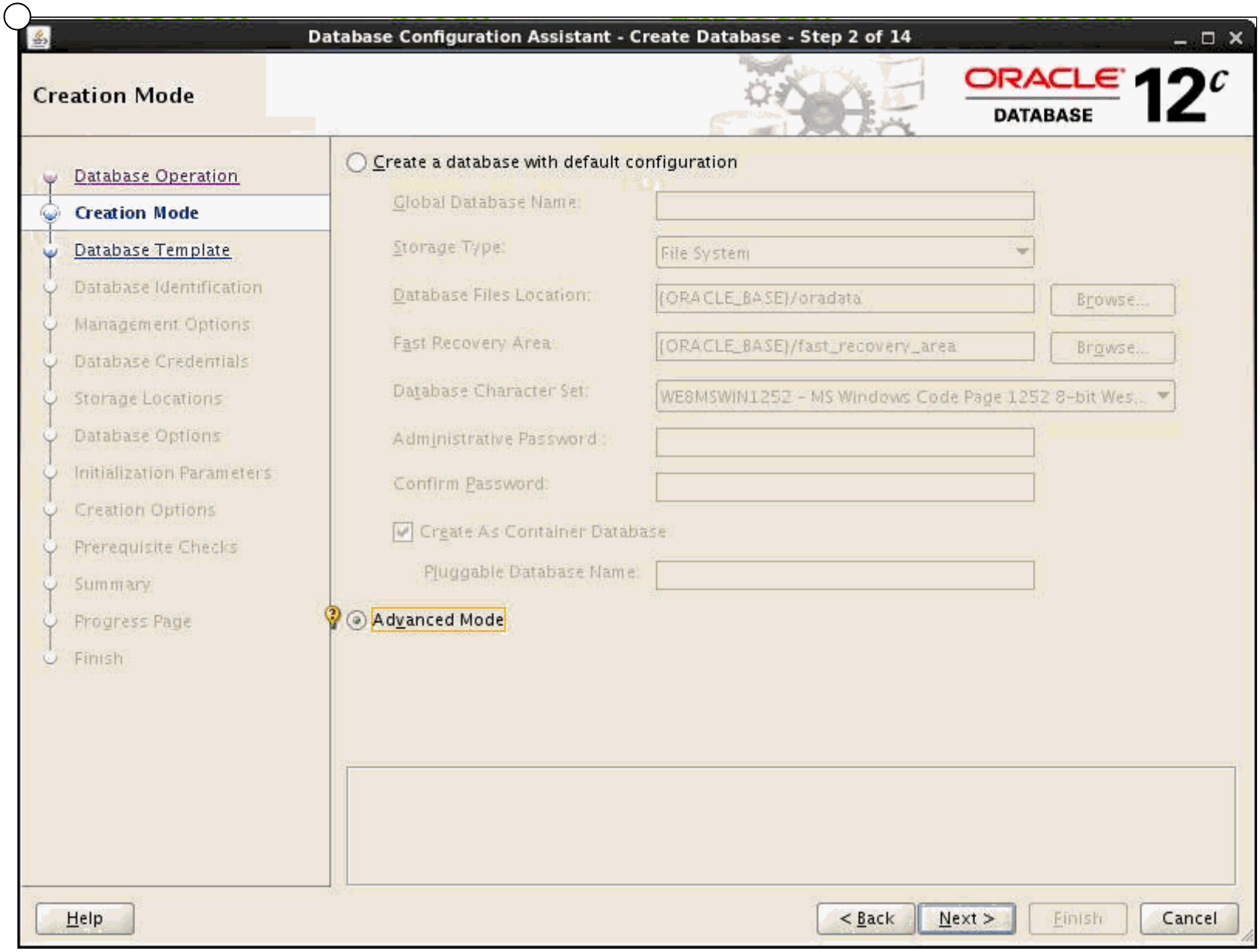
Creation of Non-Container Database

Creation of Container Database

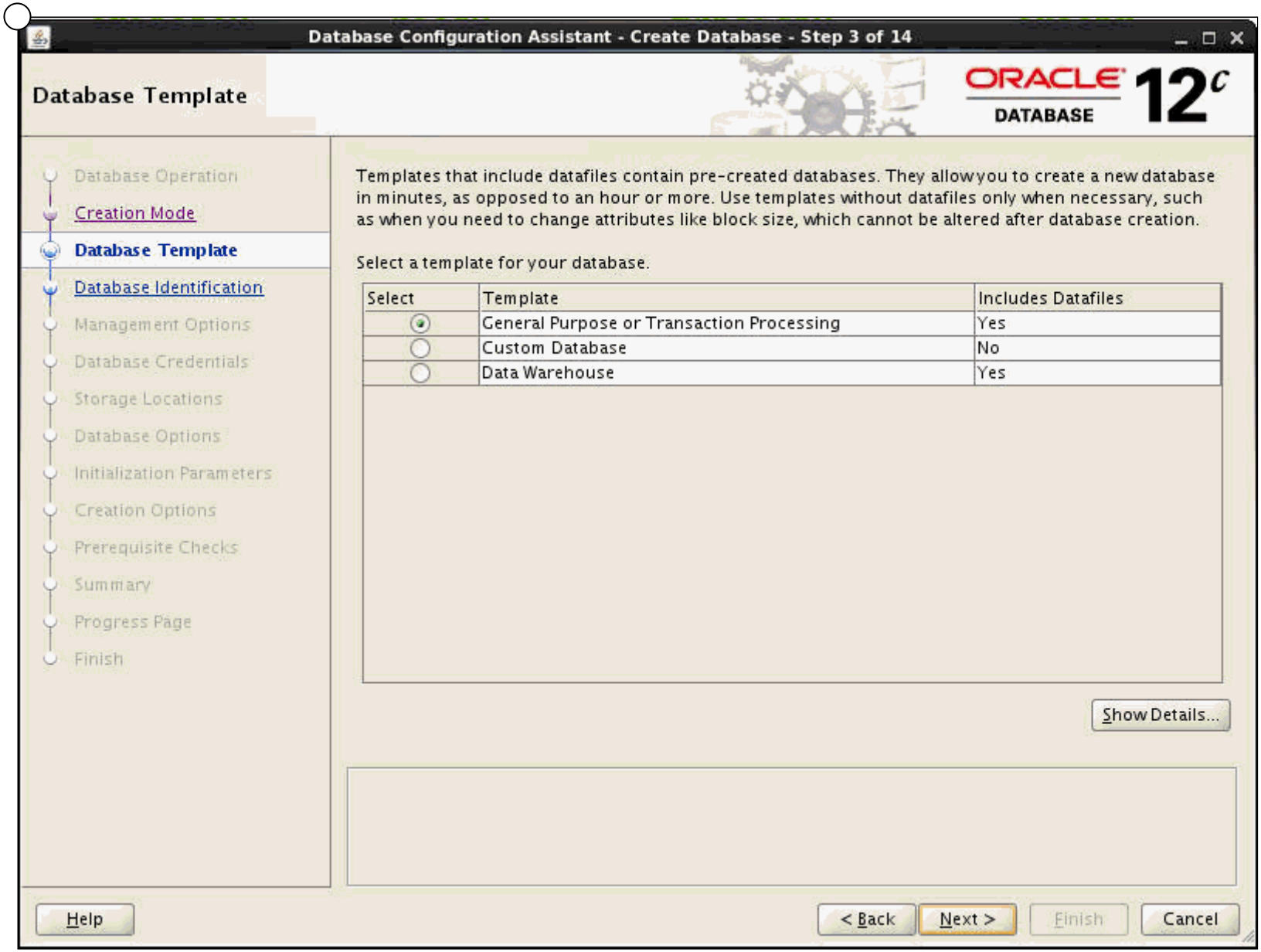
1. Log on to your computer as a member of the administrative group that is authorized to install Oracle Database software and create a database.
2. Invoke DBCA as appropriate to your operating system.
3. The Database Operation window appears. Select Create Database. Click **Next**.



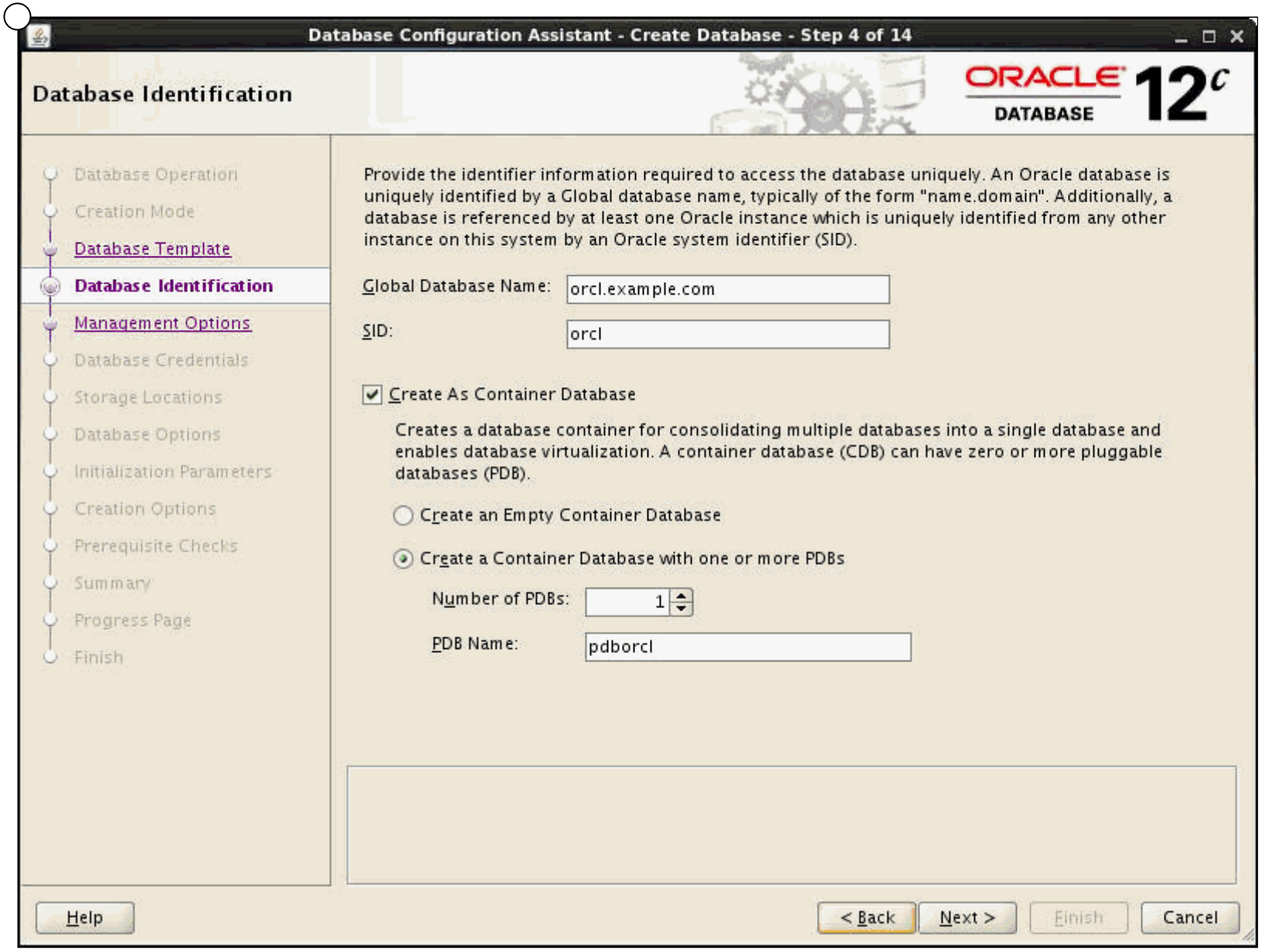
4. The Creation Mode window appears. Select **Advanced Mode**. Click **Next**.



5. The Database Template window appears. Select "**General Purpose or Transaction Processing**." Click **Next**.

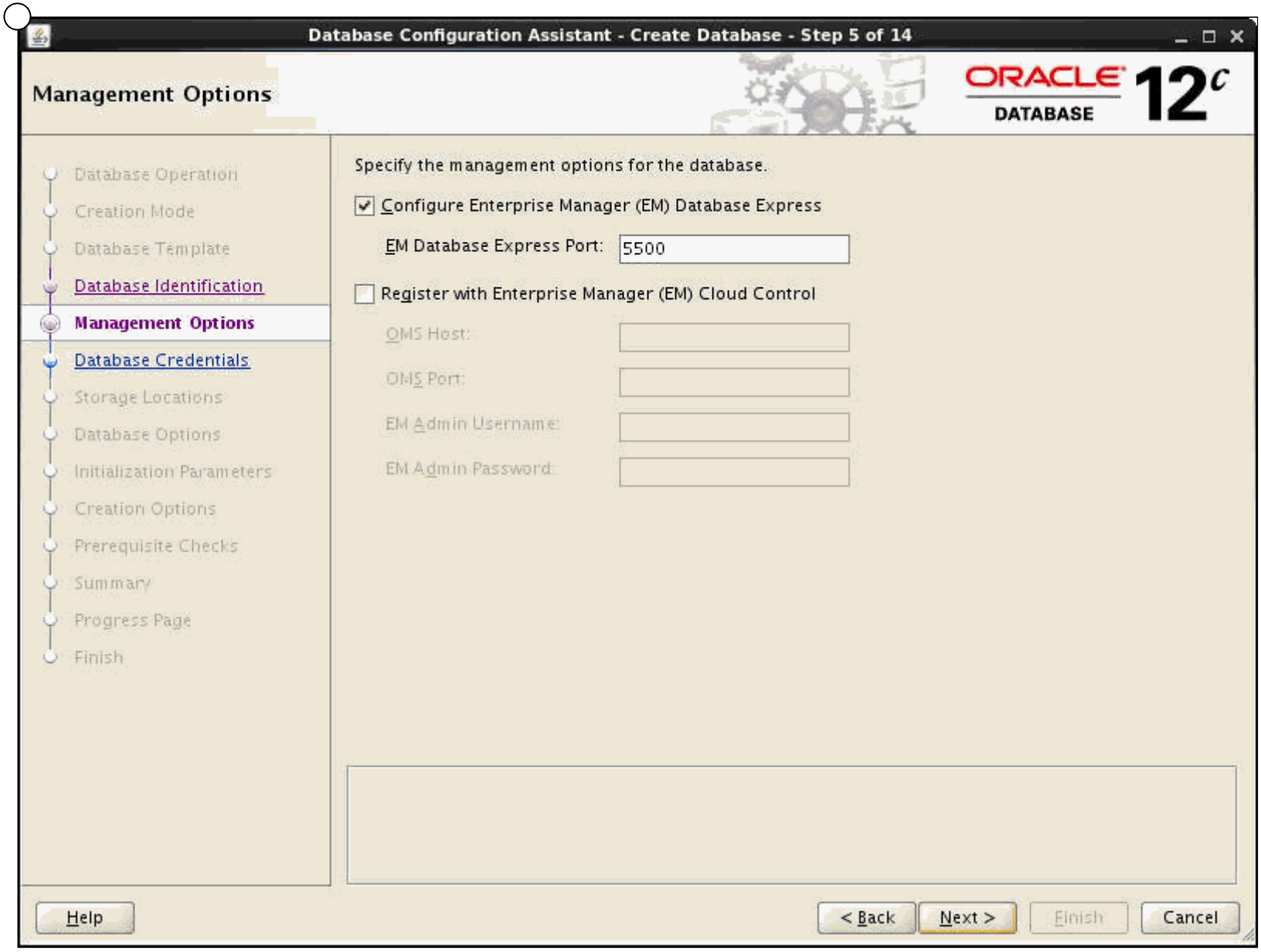


6. The Database Identification window appears. Enter a value in the Global Database Name field. Check Create As Container Database check box and provide a Pluggable database name such as pdborcl. Click **Next**.



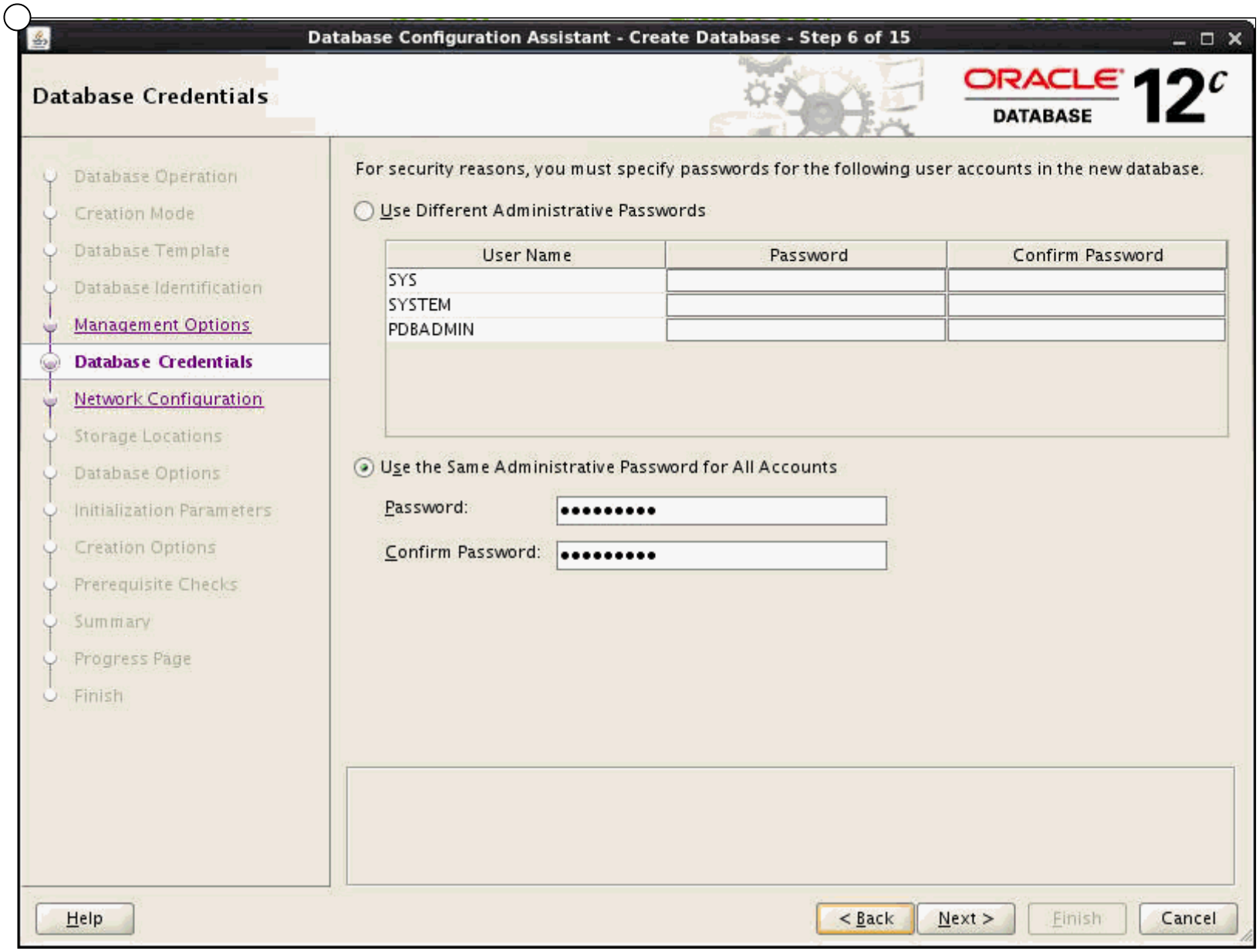
Note: The Create as Container Database option is enabled to create the database as a CDB that can support zero, one, or many user-created PDBs. If you want DBCA to create a PDB when it creates the CDB, specify the PDB name in the Pluggable database name field.

7. The Management Options window appears. Accept the defaults and click **Next**.

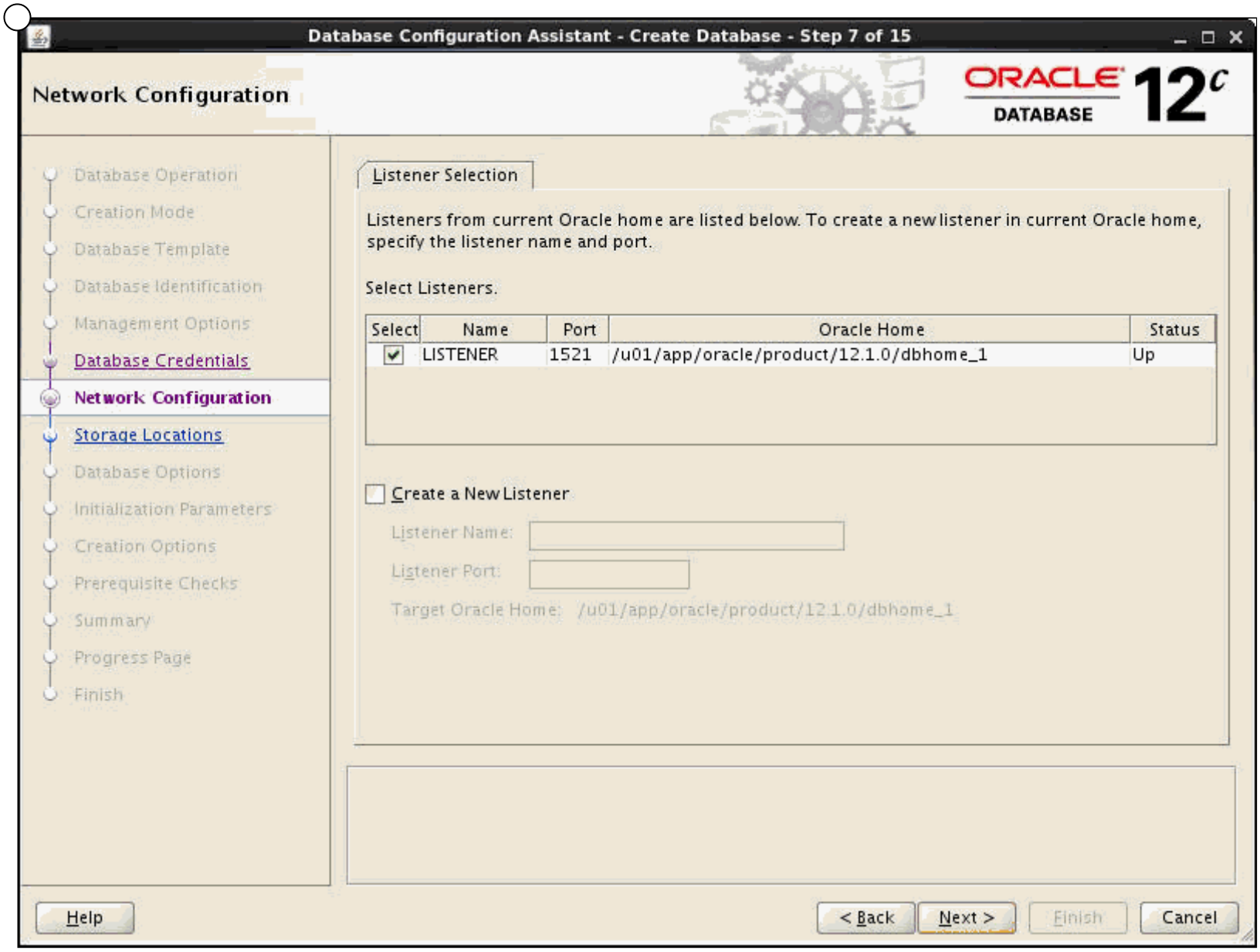


Note: EM Express Port number can be modified as per the requirement.

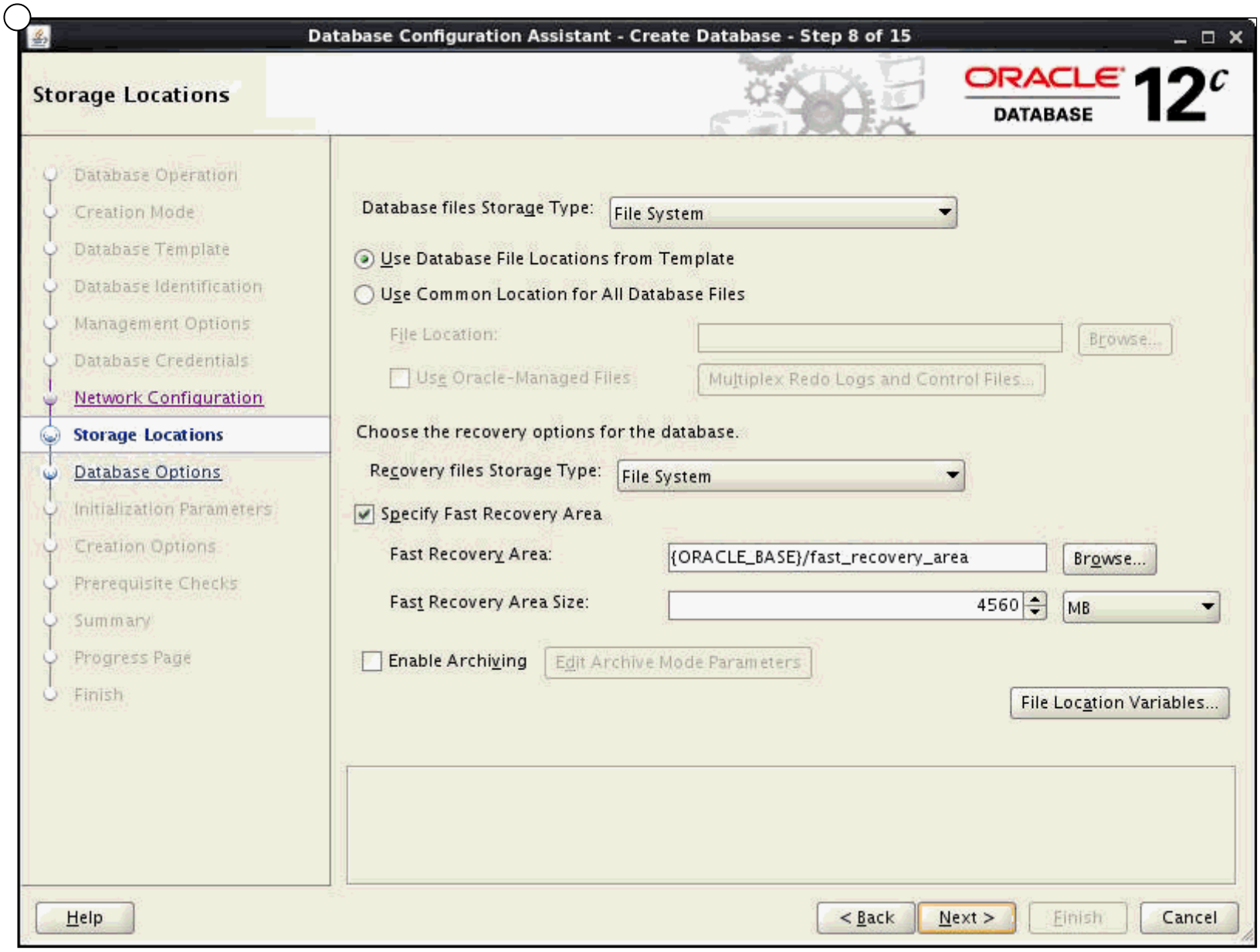
8. The Database Credentials window appears. Select "Use the Same Administrative Password for All Accounts." Enter your password in the Password and Confirm Password fields. Click **Next**.



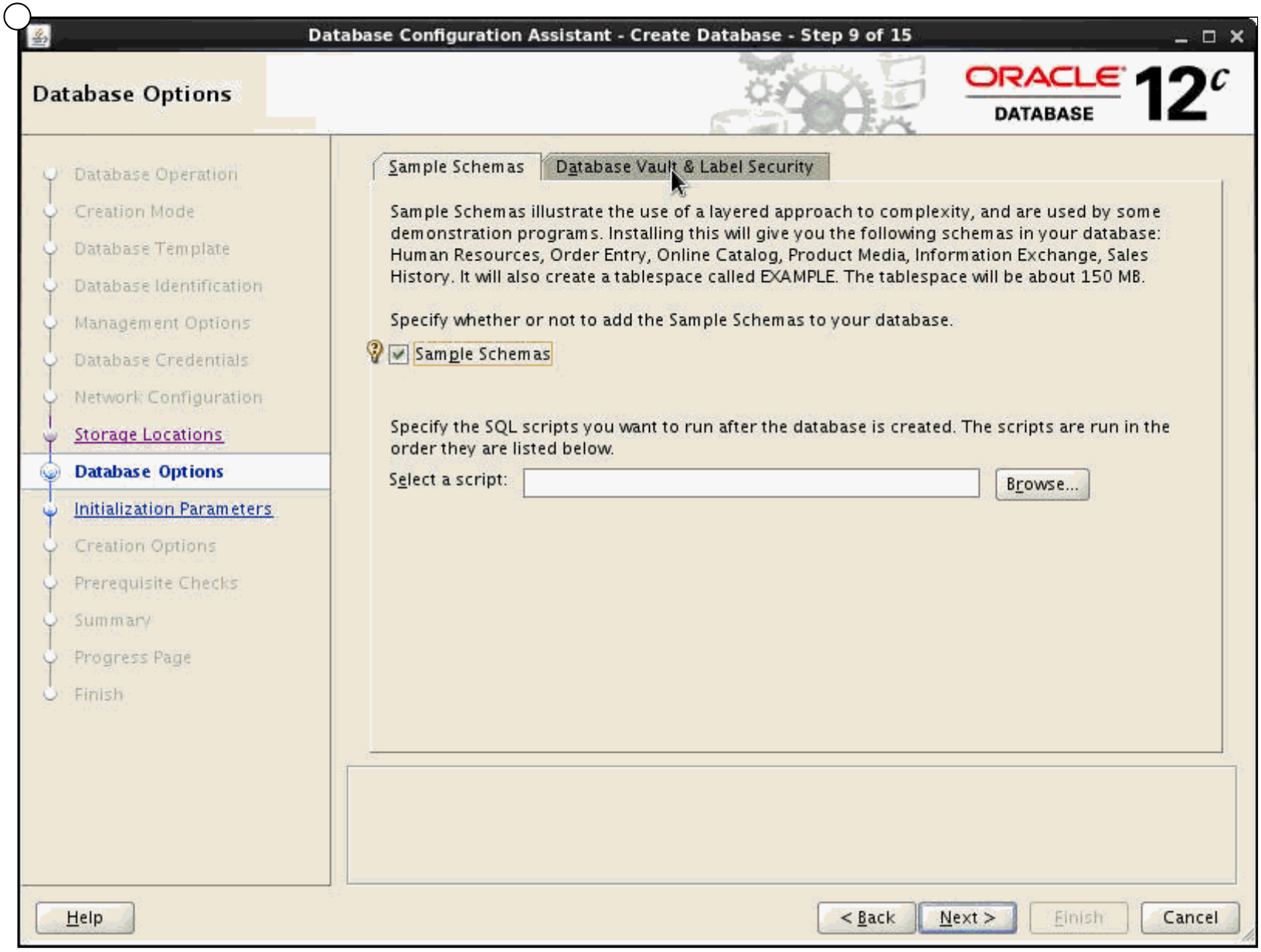
9. The Network Configuration window appears. This page is displayed only if there are any listeners in the current home. Click **Next**.



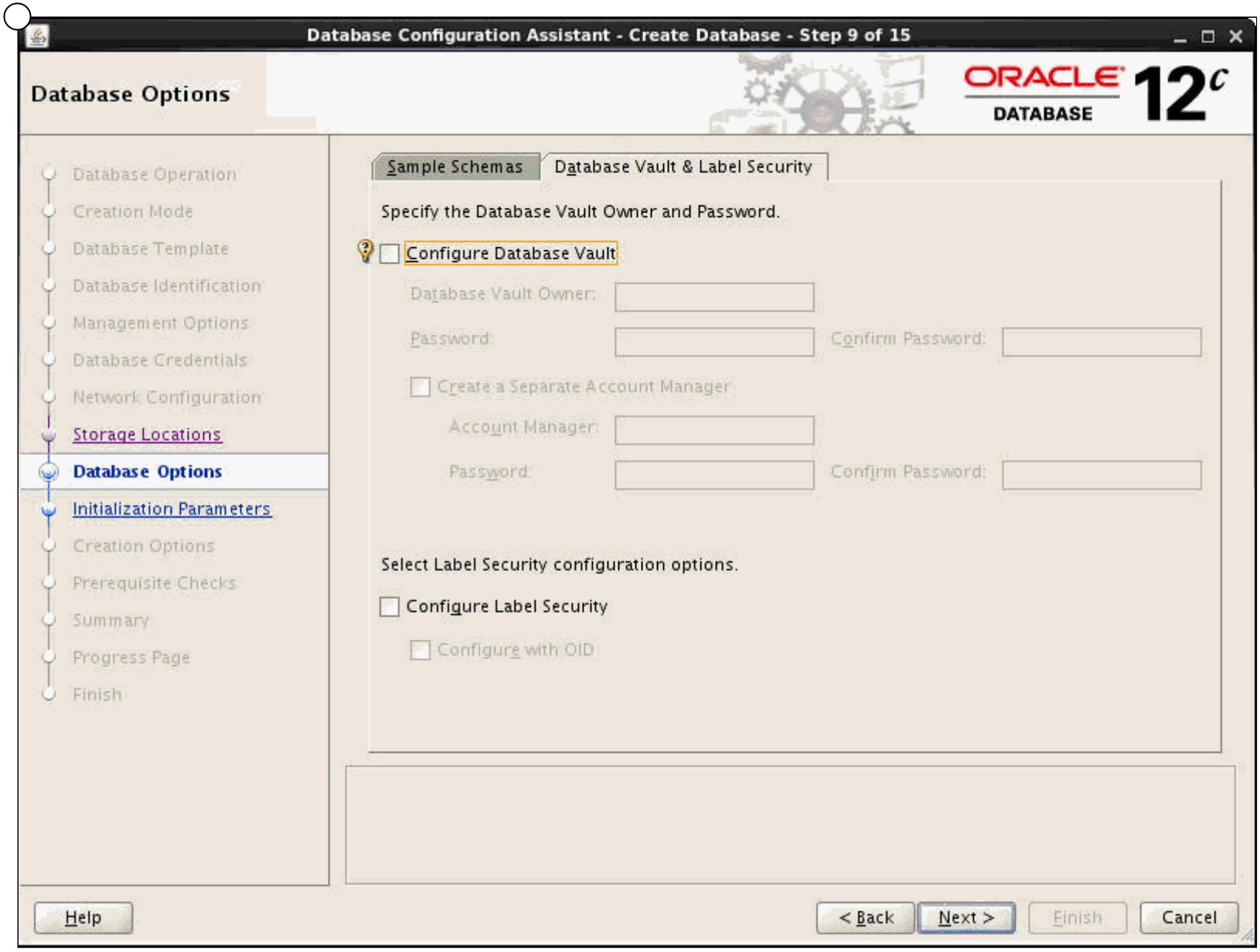
10. The Storage Locations window appears. In the Database Files region, select File System in the Storage Type menu. Select "Use Database File Locations from Template." In the Recovery Related Files regions, select File System in the Storage Type menu. Accept the default value for the Fast Recovery Area. Click **Next**.



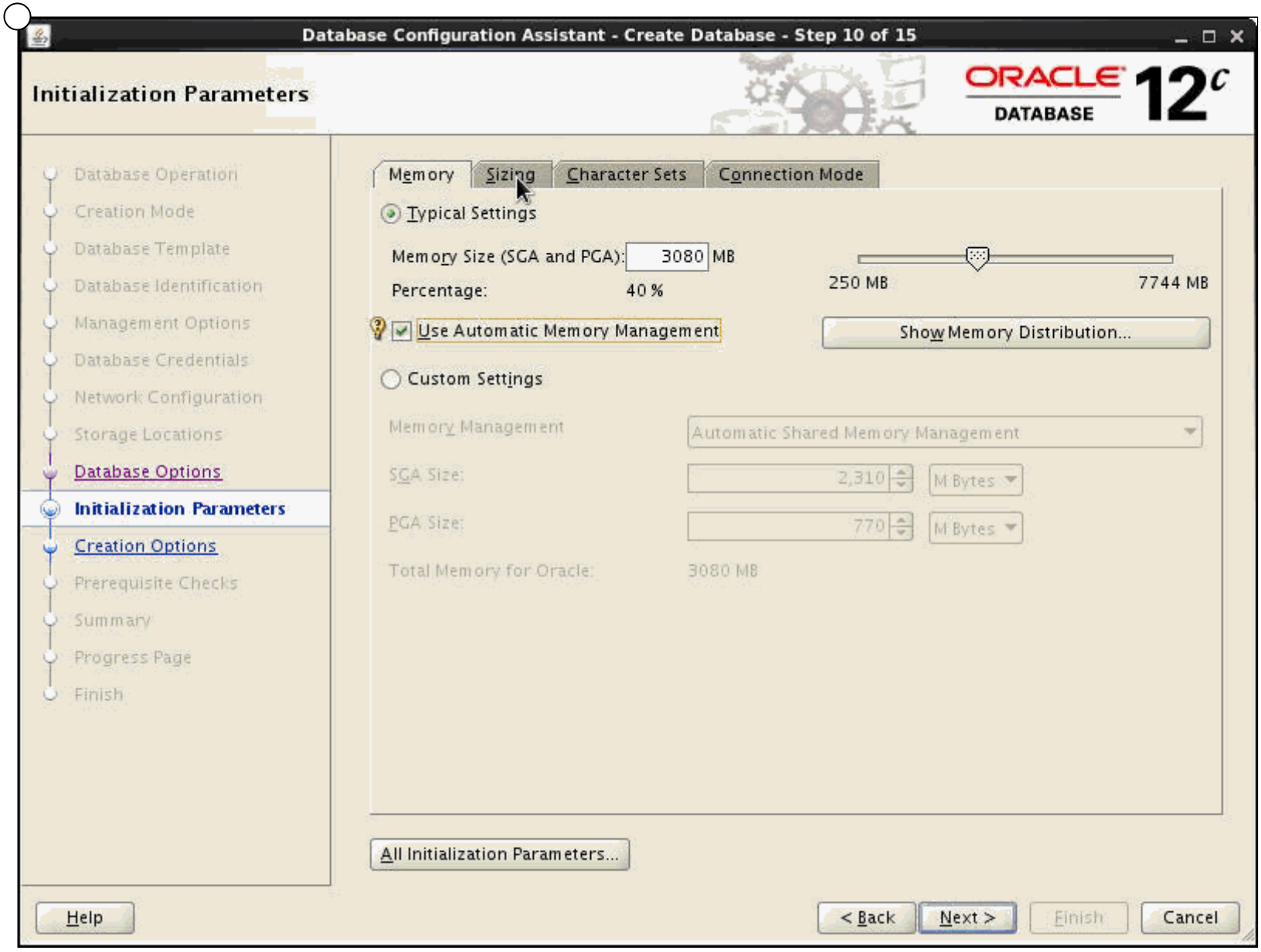
11. The Database Options window appears. On the Sample Schemas tab, select **Sample Schemas**. Click the "Database Vault & Label Security" tab.



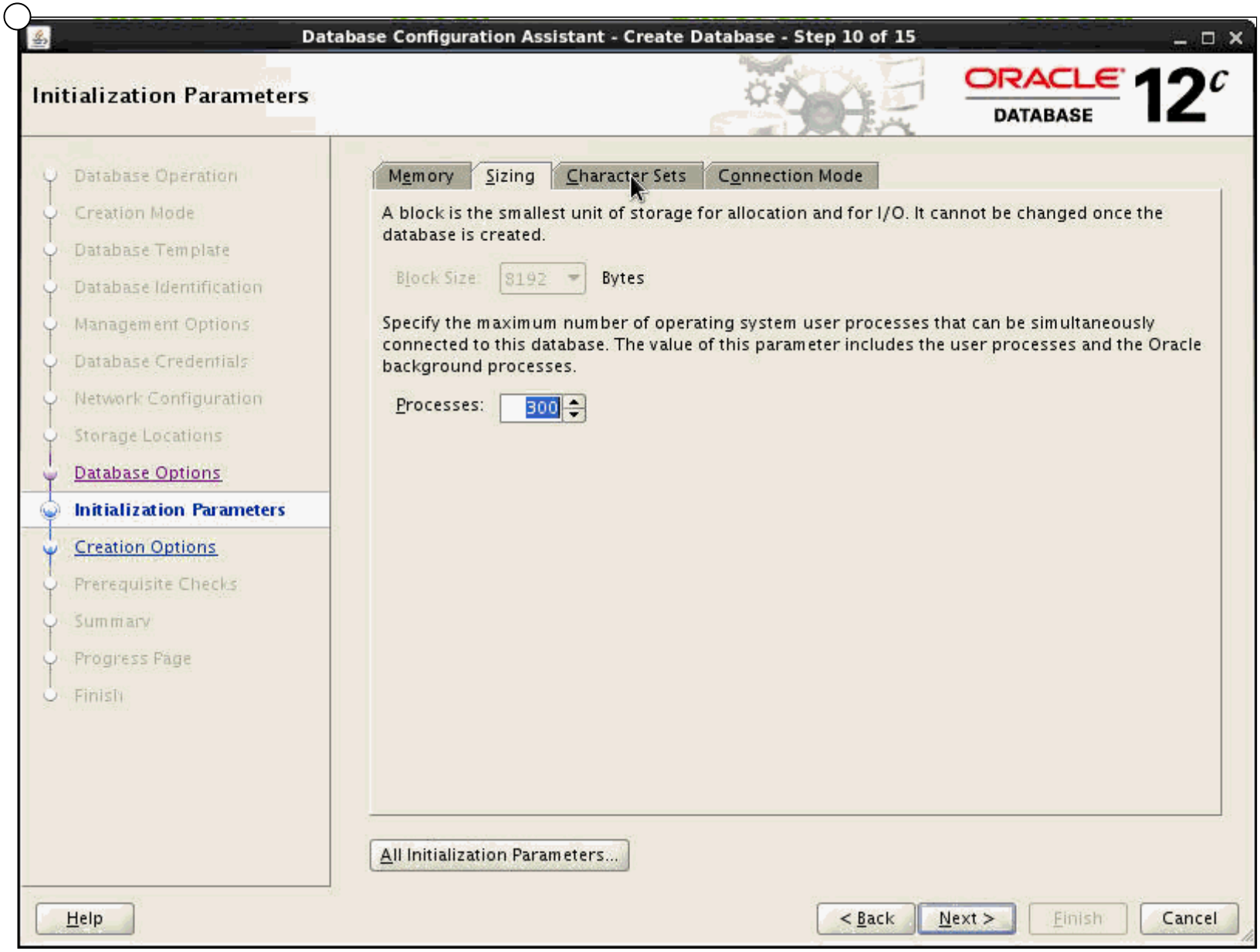
12. View the selections on the "Database Vault & Label Security" tab. Select Configure Database Vault and/or Configure Label Security if appropriate for your installation. Click **Next**.



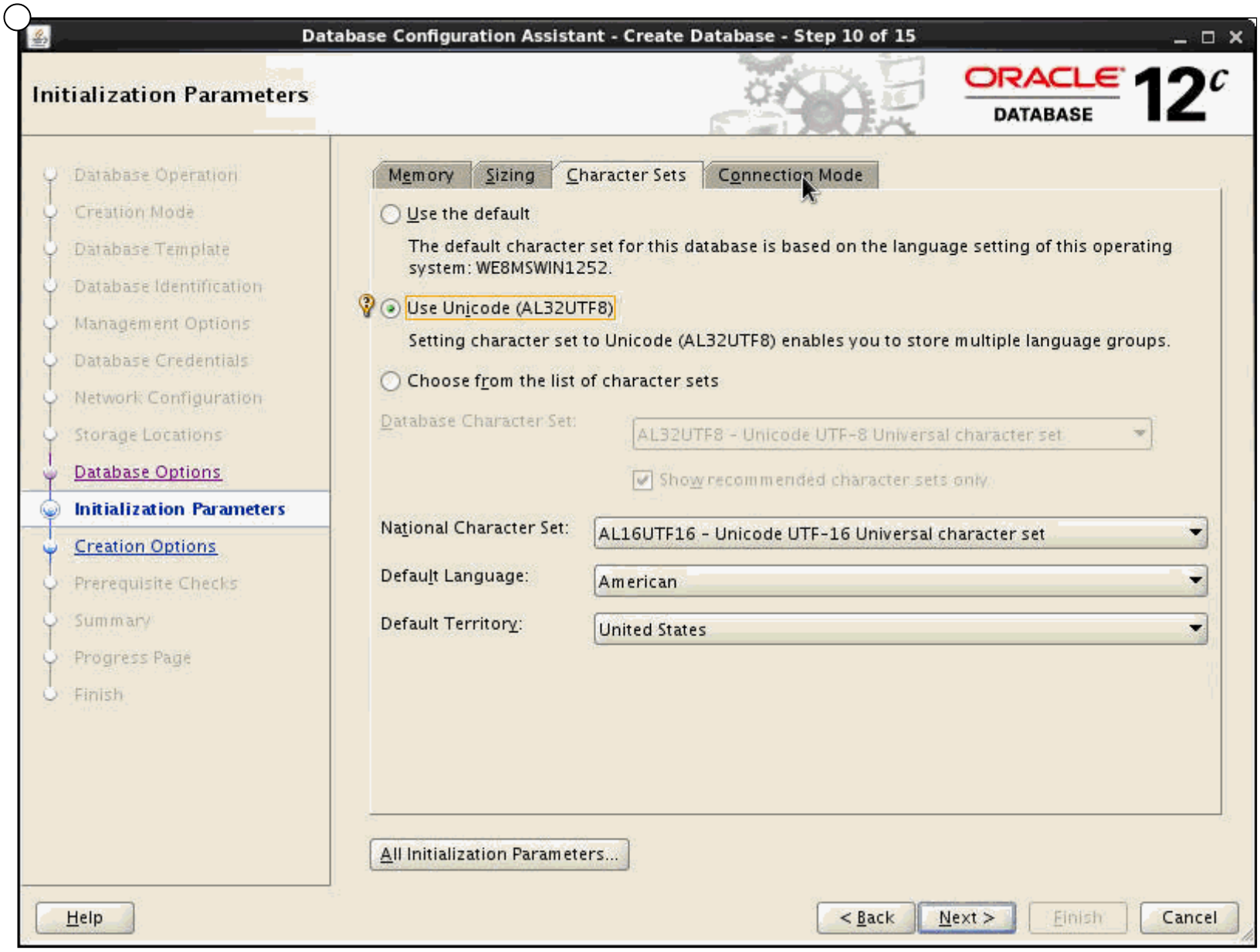
13. The Initialization Parameters window appears. Accept the default value of Memory Size(SGA and PGA) and select Use Automatic Memory Management under Typical Settings option. Modify the value in Memory Size if necessary for your installation . Click the **Sizing** tab.



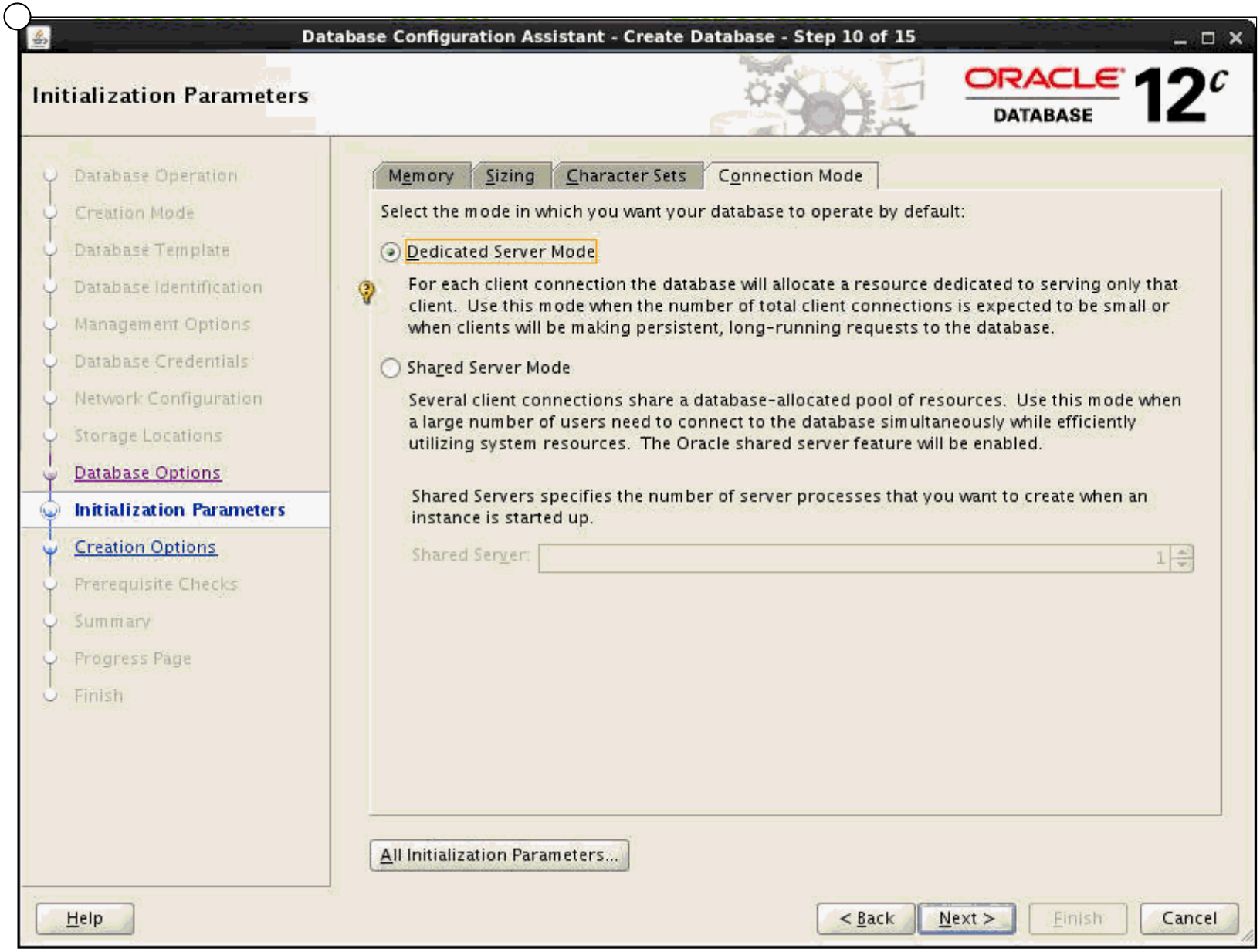
14. On the Sizing tab accept the default value in the Processes field or change it as appropriate for your installation. Click the **Character Sets** tab.



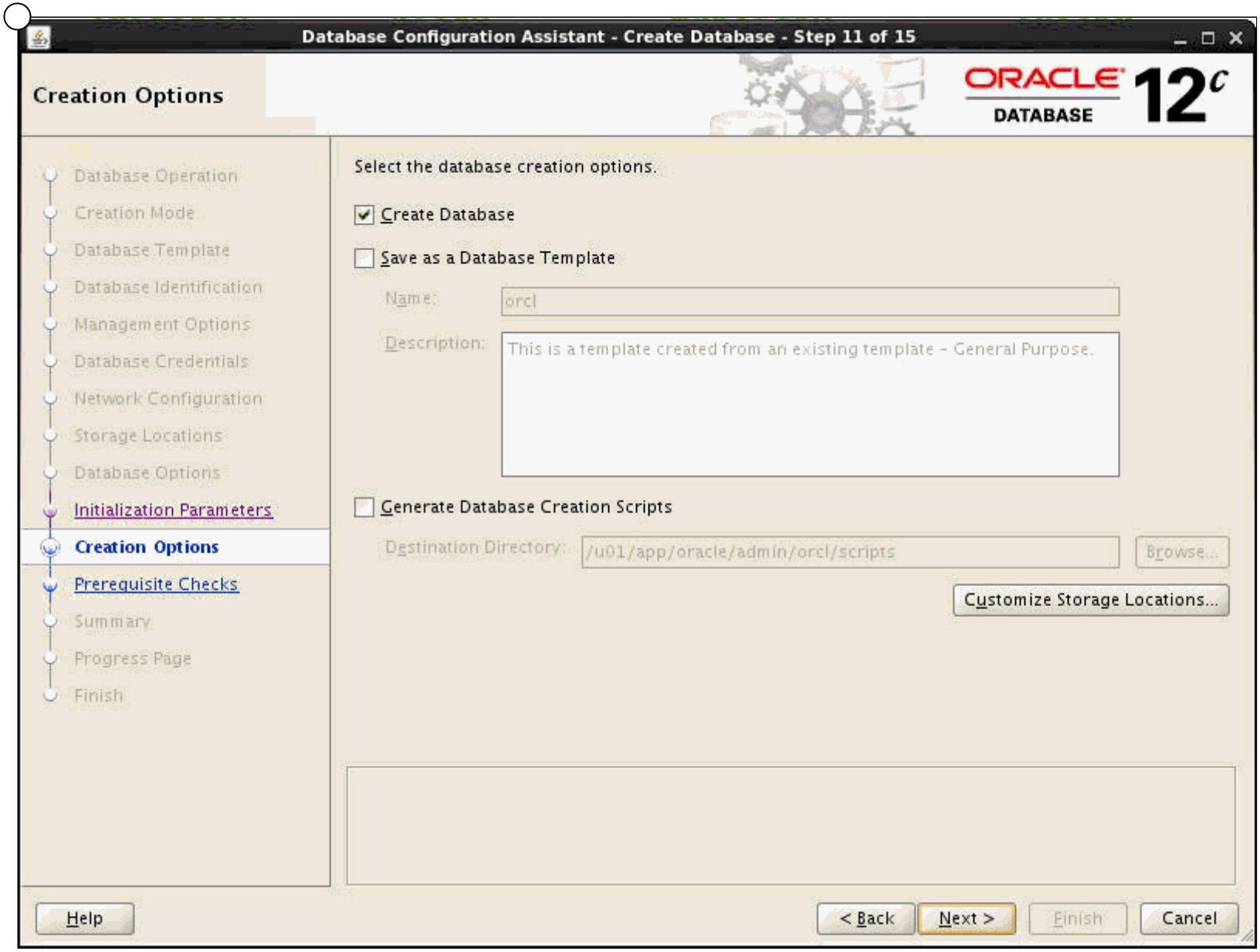
15. On the Character Sets tab select "**Use Unicode (AL32UTF8)** " or change it as appropriate for your installation. Click the **Connection Mode** tab.



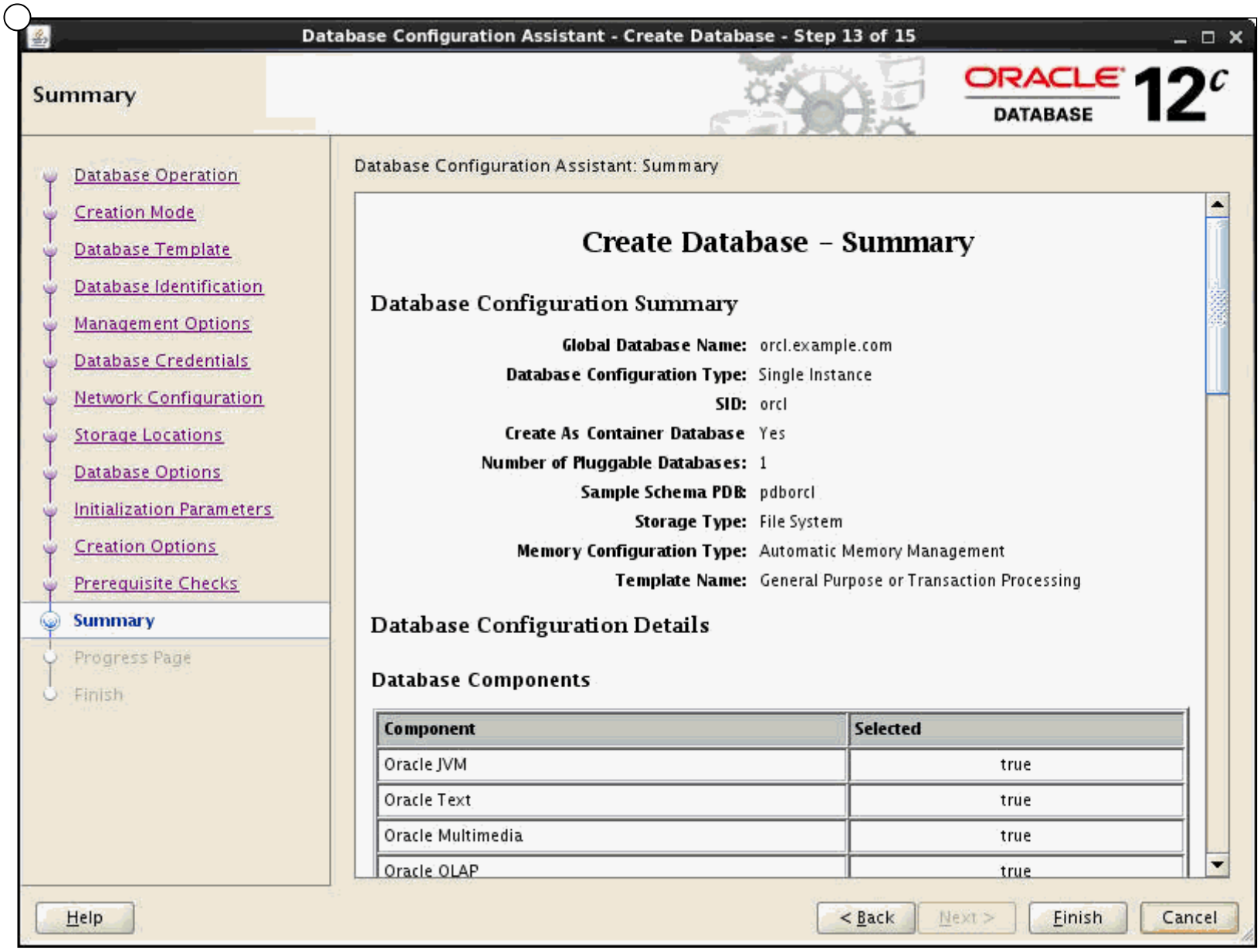
16. On the Connection Mode tab accept the default of **Dedicated Server Mode**. Click **Next**.



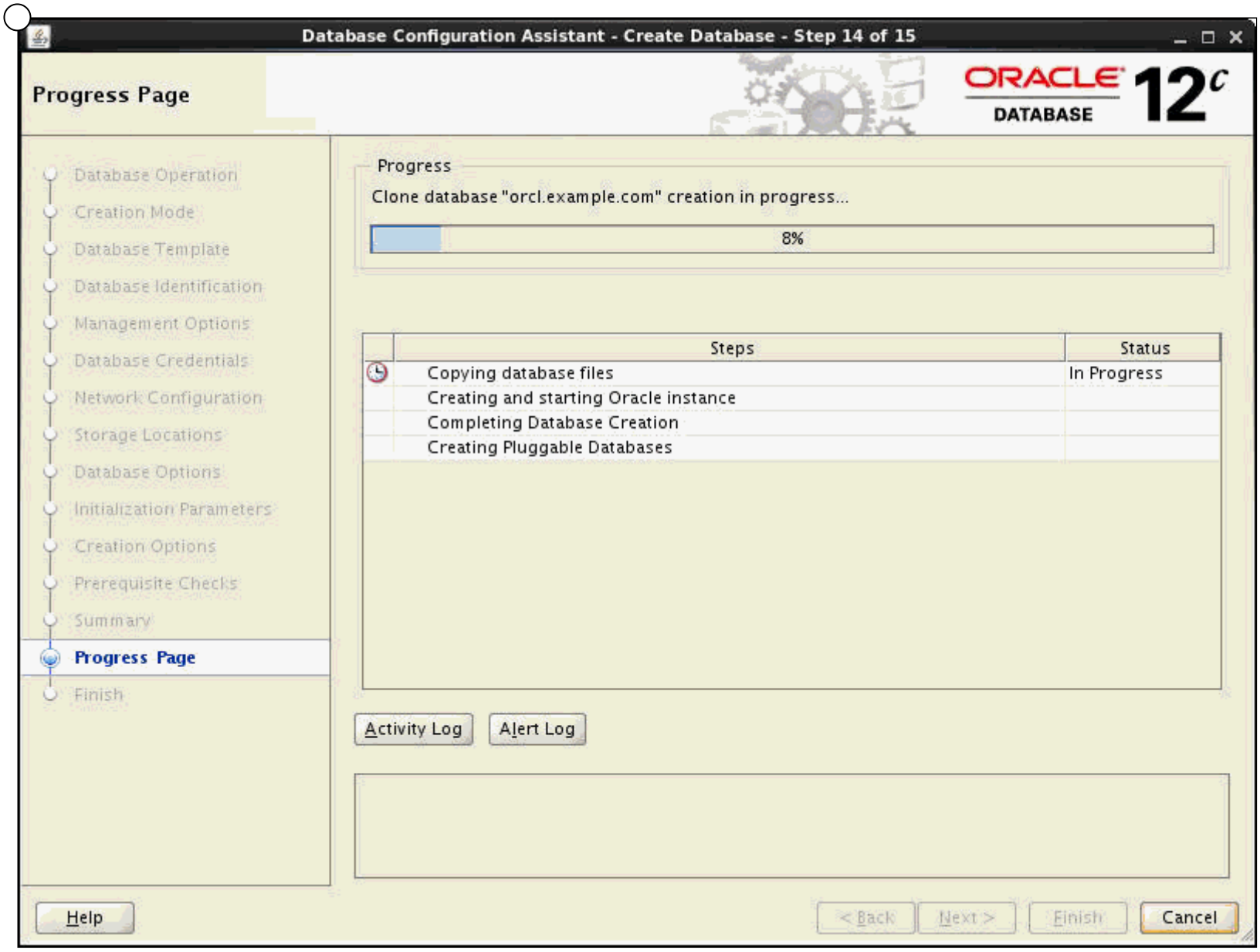
17. The Creation Options window appears. Review the details and click **Next**.



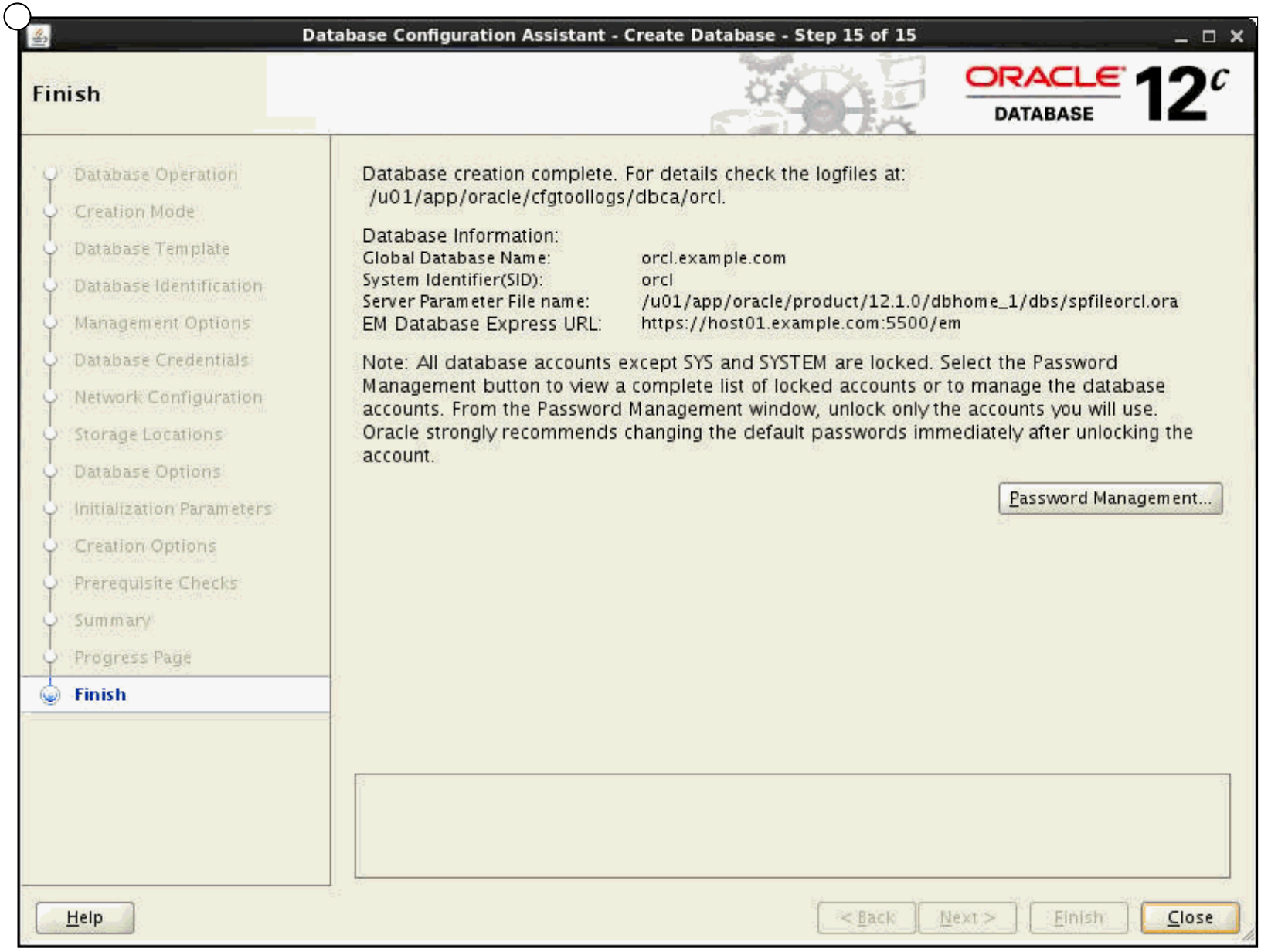
18. The Summary window appears. Review the configuration summary information. Click **Finish**.



19. The Progress Page window appears.



20. The Database Configuration Assistant window appears indicating the database has been created. Select Password Management to unlock the user accounts or perform this task at a later time. Click **Close**.


Database Configuration Assistant - Create Database - Step 15 of 15
Finish
ORACLE DATABASE 12c
Database Operation
Creation Mode
Database Template
Database Identification
Management Options
Database Credentials
Network Configuration
Storage Locations
Database Options
Initialization Parameters
Creation Options
Prerequisite Checks
Summary
Progress Page
Finish
Database creation complete. For details check the logfiles at:
/u01/app/oracle/cfgtoollogs/dbca/orcl.
Database Information:
Global Database Name: orcl.example.com
System Identifier(SID): orcl
Server Parameter File name: /u01/app/oracle/product/12.1.0/dbhome_1/dbs/spfileorcl.ora
EM Database Express URL: https://host01.example.com:5500/em
Note: All database accounts except SYS and SYSTEM are locked. Select the Password Management button to view a complete list of locked accounts or to manage the database accounts. From the Password Management window, unlock only the accounts you will use. Oracle strongly recommends changing the default passwords immediately after unlocking the account.
Password Management...
Help
< Back
Next >
Finish
Close

Summary

Summary